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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Dong et al.

U.S. Serial No.: 09/829,073 Examiner: L. Cook

Filing Date : April 9 2001 Group Art Unit: 1641

For : HUMAN ZONA PELLUCIDA PROTEIN 3 AND USES
THEREOF

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July 29, 2002

Honorable Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. § 1.56, applicants would like to direct the Examiner's attention to the following references which are listed on Form PTO-1449 (Exhibit A) and are attached hereto as Exhibits 1 through 16, respectively:

1. Bergegeay, S. et al. Composition of Human Zona Pellucida as Revealed by SDS-PAGE After Silver Staining. Molecular Reproduction and Development 41:355-359 (1995)
2. Bleil, Jeffrey D. et al. Sperm-Egg Interactions in the Mouse: Sequence of Events and Induction of the Acrosome Reaction by a Zone Pellucida Glycoprotein. Developmental Biology 95.317-324 (1988)

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3. Bleil, Jeffrey D. et al. Identification of a Secondary Sperm Receptor in the Mouse Egg Zona Pellucida: Role in Maintenance of Binding of Acrosome-Reacted Sperm to Eggs. *Developmental Biology* 128.376-385 (1988)
4. Clark, Gary F. et al. New Concepts in Human Sperm-Zona Pellucida Interaction. *Human Reproduction* Volume 10 Supplement 1 (1995)
5. Duin, Marcel Van et al. Cloning and Characterization of the Human Sperm Receptor Ligand ZP3: Evidence for a Second Polymorphic Allele with a Different Frequency in the Caucasian and Japanese Populations. *Genomics* 14, 1064-1070 (1992)
6. Duin, Marcel Van et al. Recombinant Human Zona Pellucida Protein ZP3 Produced by Chinese Hamster Ovary Cells Induces the Human Sperm Acrosome Reaction and Promotes Sperm-Egg Fusion. *Biology of Reproduction* 51,607-617 (1994)
7. Greve, Jeffrey M. et al. Biosynthesis of the Major Zone Pellucida Glycoprotein Secreted by Oocytes during Mammalian Oogenesis. *Cell.* Vol. 31.749-759 December 1982
8. Gupta, S.K. et al. Immunoreactivity with Native Zona Pellucida of Antibodies against a 19 Amino Acid Synthetic Peptide Corresponding to Human ZP3. *Journal of Reproductive Immunology* 27 (1994) 241-247

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9. Gupta, S.k. et al. Localization of Epitopes for Monoclonal Antibodies at the N-Terminus of the Porcine Zone Pellucida Glycoprotein pZPC. Molecular Reproduction and Development 42:220-225
10. Harris, Jeffrey D. et al. Cloning and Characterization of Zona Pellucida Genes and cDNAs from a Variety of Mammalian Species: The ZPA, ZPB and ZPC Gene Families. The Journal of Sequencing and Mapping, Vol.4, pp. 361-393 (1994)
11. Kinloch, Roes A. et al. Embryonal Carcinoma Cells Transfected with ZP3 Genes Differentially Glycosylate Similar Polypeptides and Secrete Active Mouse Sperm Receptor. Rockefeller University Press, 0021-9525/91/11/655/10
12. Kipersztok, Simon et al. POM-ZP3, a Bipartite Transcript Derived from Human ZP3 and a POM121 Homologue. Genomics 25, 354-359 (1995)
13. Litscher, Eveline S. et al. Recombinant Hamster Sperm Receptors that Exhibit Species-Specific Binding to Sperm. Zygote 4 (August), pp229-236 (1996)
14. Liu, Chengyu et al. Zona Pellucida Glycoprotein mZP3 Bioactivity is not Dependent on the Extent of Glycosylation of its Polypeptide or on Sulfation and Sialylation of its Oligosaccharides. Journal of Cell Science 110.745-752 (1997)

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15. Oehninger, Sergio et al. Use of a Specific Zona Pellucida (ZP) Protein 3 Antiserum as a Clinical Marker for Human ZP Integrity and Function. Fertility and Sterility Vol. 65 No. 1, January 1996

16. Vazquez, Monica H. et al. Interaction of Mouse Sperm with Purified Sperm Receptors Covalently Linked to Silica Beads. Journal of Cell Science 92, 713-722 (1989)

These references were submitted in U. S. Serial No. 09/252,828, filed on 02/19/99, of which this application claims priority. If the Examiner would want another copy, the applicants invite the Examiner to contact the undersigned attorney.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this communication. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to the same account.

Respectfully submitted,

Albert Wai-Kit Chan

I hereby certify that this paper is being deposited this date with the U.S. Postal Service with sufficient postage for first class mail addressed to:
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Washington, D.C. 20231.

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